



ANNUAL REPORT

ON THE

Health of Margate

FOR THE YEAR, 1897.

BY THE

MEDICAL OFFICER OF HEALTH.

Margate :

Printed by R. ROBINSON & Co. 4, QUEEN STREET.

—
1898.

Borough of Margate.

COUNCILLOR BROWN, MAYOR.

Sanitary and Sewerage Committee:

ALDERMAN WOOTTON, CHAIRMAN.

COUNCILLOR BAMBER

„ CARTER

„ HERMITAGE

„ HUGHES

„ SIMMONS

„ WALES

Medical Officer of Health:

A. W. SCATLIFF, D.P.H.

Inspector of Nuisances:

EDWARD ELLIOT.

Town Clerk:

G. FOORD-KELCEY.

To the Chairman and Members of the Sanitary Committee.

GENTLEMEN,

I beg to submit my Annual Report on the Health of Margate for 1897.

The population of the Borough increased rapidly during the year, and on November 1st, 1897 it was estimated to be 22,000, a small reduction has to be made from these figures however for the purpose of calculating the Vital Statistics. The number of houses completed during the twelve months ending October 19th, 1897, was 146, and at this date there were 75 others in course of erection.

Births. The number of births registered in the Urban Sanitary District in 1897 was 444, being 212 of males and 232 of females. This represents a natural increase of 96, and a birthrate of 20·4, which is rather below the average of the last five years :—

Year.	1893	1894	1895	1896	1897
Birth-rate.	22·9	21·6	21·7	20·0	20·4

Deaths. The number of deaths registered during the year was 348, a satisfactory figure considering the increase in the population, the average for the five years 1893-97 having been 331. In order to correct this gross total of 348 it is necessary to deduct the 61 deaths which occurred amongst visitors, and the 20 amongst other non-residents who were inmates of the various public institutions of the town, but to add those of 37 Margate people who died outside the district, viz. :—31 in the Minster Union House, 5 in Charlton Asylum and 1 in the Isolation Hospital at Northwood. This gives a corrected total of 304 for the year amongst bona fide residents.

Death-rate. The Death-rate is equivalent to 13·97 per thousand per annum, and is slightly below the average of the last five years as the following table will show.

Year.	1893	1894	1895	1896	1897
Death-rate	15·6	14·2	15·3	12·3	13·9

The death-rate of the whole of England and Wales in 1897, as certified by the Registrar-General, was 17·4 per thousand.

Zymotic Death-rate.

The death-rate from Zymotic Diseases during the year was 0·8 per thousand per annum, and indicated a *very low* mortality from infectious diseases. The following were the Zymotic rates for the last five years :—

Year.	1893	1894	1895	1896	1897
Zymotic Rate	1·6	1·4	2·0	0·7	0·8

The Zymotic death rate for England and Wales in 1897 was 2·1 per 1000.

Zymotic Diseases.

The number of deaths registered in the Borough during the year from Zymotic diseases was 18, viz. :—6 from diarrhoea, 5 from measles, 3 from diphtheria, 2 from whooping cough, and only one each from scarlet fever and enteric fever. One of the deaths from diphtheria was that of a visitor and was an imported case.

Measles, as in other parts of the country, was the most prevalent Zymotic disease in the Borough during the latter part of the year, and in consequence a considerable number of pupils had to be temporarily excluded from attendance at the various public elementary schools. This disease not being a notifiable one under the Act, the information received was chiefly derived from the voluntary notifications of the school teachers, hence it was necessarily of an incomplete character. Even however if it had been included in the Schedule of notifiable diseases, it is a question whether much advantage would have been gained, as measles is highly infectious in the pre-eruptive stage, and the mischief is often done before notification is possible.

Infantile Mortality.

The number of deaths of children under one year, excluding those of visitors, was 62, representing an infantile mortality of 139 deaths per 1000 registered births, as against a rate of 142 in the previous year. As the infant mortality of the whole country during the same period was 156, the Margate rate for the year must be considered a very satisfactory one.

Accident or Violence.

There were 21 deaths due to the various forms of accident or violence, including the nine caused by the recent Surf Boat Disaster. Five deaths occurred amongst visitors, deducting these,

we find that accidental and violent deaths represented a rate of .73 per thousand of the population and this figure is considerably above the average of recent years.

There were 53 cases of infectious disease admitted from Margate into the Joint Hospital at Northwood, this being 30 less than in the preceding year. One death from Scarlet Fever occurred amongst them. It should be mentioned however that more than one case of enteric fever which should have been isolated there, had, through the smallness of the Hospital and its lack of accommodation, to be nursed at home. This constituted a danger to the community, and it is therefore a matter of the utmost sanitary importance and at the same time one for congratulation that the Isle of Thanet Joint Hospital Board has at length unanimously agreed upon a suitable site for a new hospital, and I hope that the erection of a building more suited to the present day needs of the District will now be pushed on with all possible speed.

The number of cases of infectious disease notified during the year was 142, this being the lowest number ever reported to me in one year since the Infectious Diseases (Notification) Act was adopted in the Borough in 1890, and was 50 below the average of the last five years. It is largely due to the knowledge obtained through this Act, coupled with the careful supervision which the Inspector of Nuisances gives both to the disinfection of rooms, and also of infected articles of clothing, etc., by the new Steam Disinfector, that the number of infectious cases has been kept within such comparatively narrow limits, a task of no mean difficulty when it is borne in mind that out of this 142 cases no less than 39 were distinctly imported, and many others became infected from these before the presence of the disease became known.

On September 16th, 1897, from information which came to my knowledge I visited a boy who had been attending one of the Public Elementary Schools in the peeling stage of scarlet fever, and found that four of his brothers and sisters were also suffering from the same complaint, but no notification had been made of the fact. I reported the matter to the Sanitary Committee, who instructed a prosecution to be instituted against the parents, with the result that the full penalty and costs were inflicted. Another case also occurred on November 8th, 1897, of a child suffering from scarlatina which had not been notified and in this case a prosecution and fine followed also. It cannot therefore be too

widely known that under the Infectious Diseases Notification Act now in force in the Borough, every head of a family or household is required on becoming aware that an inmate of his house is suffering from small-pox, cholera, diphtheria, scarlet fever, erysipelas or any of the following fevers, viz. typhus, typhoid, relapsing or puerperal, to notify the fact forthwith to the Medical Officer of Health, as in the interests of the community, the Sanitary Committee have resolved to institute proceedings in all cases of failure to comply with the Act.

Housing of the Working Classes. Under the Housing of the Working Classes Act, 1890, I presented early in the year, a joint report with the Sanitary Inspector on various insanitary houses in the Borough. These were in due course visited by the Sanitary Committee, who authorized the requisite notices to be served on the owners, with the following result :—Six were pulled down and their sites remain vacant, five others were demolished and other buildings erected in their stead, and two others were put into a state of thorough repair. In consequence of this action sixteen families who had lived in them were displaced, and had the greatest difficulty in finding accommodation elsewhere. This ultimately led to numerous cases of overcrowding where they were taken in. In order to carry out this Act in its entirety, and to avoid the creation of one nuisance by the abolition of another, it is necessary that some provision should be made for those who are displaced by its operation, and for this purpose I recommend that Municipal Model Dwellings should be erected. In conjunction with the Inspector of Nuisances, I have visited various sites that would be suitable for such buildings, and have presented a Report upon them. If care were taken to regulate them by suitable bye-laws, there is no reason why they should not ultimately pay their own cost; but whether that were so or not, it would in my opinion be public money well spent for the public good.

Water Supply. In view of the rapidly increasing population of the Borough, the question of the best means of increasing the existing Water Supply of Margate has necessarily occupied a foremost position, during the year, amongst matters affecting the public health. The great danger of such sources of Water Supply as the Wingham Scheme would involve becoming polluted, with disastrous results, as exemplified in the recent epidemic at Maidstone, justifies in my opinion the Town Council in undertaking the Deep Boring for

water which they have decided upon, and should it prove that a supply, abundant in quantity and unimpeachable in quality can be obtained in this way, there can be no doubt it would be a most satisfactory way of providing the needed supply, but if it should fail I think the Town Council should be prepared either to recur to the Wingham Scheme or to investigate the other possible source of Water Supply to which Mr. MANSERGH referred in his Report, viz.—the South Western portion of the Isle of Thanet lying beyond Minster.

Drainage The Drainage System of the Borough has worked most satisfactorily in every respect during the year. The total number of houses connected to the public sewers during the twelve months ending November 1st, 1897 was 266, thus making a still further demand upon our Water Supply, and emphasizing the need for its increase.

Sanitary Improvements One of the greatest Sanitary improvements of the year was the erection of a Public Mortuary, the need for which had been much felt for some time past. In order to ensure its proper regulation the Model Bye-laws for Mortuaries of the Local Government Board have been adopted. The other measures of Sanitary improvement to which I referred in my last Annual Report, viz.:—(1) The obtaining of an increased Water Supply, (2) the more adequate provision for the isolation of cases of infectious disease, (3) the erection of Municipal Working Class Lodging Houses, (4) the acquisition of a Dust Destructor, and (5) the establishment of an Abattoir are some of the most important still requiring to be carried out in the Borough.

Sanitary Work. During the year much Sanitary work was carried out. One of the many matters dealt with was the frequent and periodical taking of samples, both for chemical and bacteriological examination, from the Public Water Supply, it being most desirable to watch for any possible indication of dangerous pollution, none such however occurred during the year. During the year, 809 inspections of houses were made, and as a result notices requiring 166 sanitary alterations were served and carried out. Eighty-seven nuisances arising from accumulations of filth and other offensive matters were abated.

Fifty-three infectious cases were removed to the Isolation Hospital by the Borough Ambulance.

The Steam Disinfector has been in use on 35 occasions, and 157 fumigations of rooms were effected. In addition to the samples of the Public Water Supply above mentioned, 47 samples were taken under the Food and Drugs Act, viz. :—21 of milk (including 5 of condensed milk), 10 of spirits, 10 of coffee, 5 of butter, and 1 sample of well water from a private dwelling house. The Public Analyst examined and reported on the samples submitted to him, with the result that two milk sellers and three vendors of spirits were prosecuted, convictions being obtained in four cases, but in the fifth the Magistrates, considering there was a doubt in the case, dismissed it.

I am, Gentlemen,

Your obedient servant,

A. W. SCATLIFF,

March, 1898.

Medical Officer of Health.

Annual Report
OF THE
METEOROLOGY OF MARGATE
FOR THE YEAR, 1897,
FROM OBSERVATIONS TAKEN AT
APSLEY HOUSE, St. PETER'S ROAD.

Longitude, $1^{\circ} 24' E.$ Latitude, $51^{\circ} 24' N.$
Height above sea level, 83 ft.

Climatological Station of the Royal Meteorological Society.

To the Chairman and Members of the Sanitary Committee.

GENTLEMEN,

I have much pleasure in presenting again the Weather and Climatic results as duly and continuously observed during another year. The system followed has been exactly the same as in previous years ; and the same Instruments used, 9 a.m. being the hour of Observation and that on each of the 365 mornings.

Briefly put : the daily Temperature was about the same as in 1896, but $1\frac{1}{2}^{\circ}$ above the average of the 16 years ; the Rainfall was short by $2\frac{1}{2}$ inches ; the hours of Sunshine were 95 up ; the Barometer showed about two dozen ordinary risings and fallings ; and the points of the Compass from which the Wind blew again showed that the South-West and West are the predominant factors. The year will though be mostly remembered by the heavy gales and high tides of the week beginning November 28th, with the great damage to property on the sea front, and the dreadful sacrifice of the lives of nine brave Margate men,

BAROMETER.

The average height of this useful and oft consulted Instrument was 29.997 inches, slightly below last year, and above the figure for the 15 years it has been at work. The highest point reached was 30.732 on the 21st of November, and the lowest to which it fell 28.770 on the 3rd of March, giving a range of nearly 2 inches. Both these extremes have however been exceeded here. The accompanying and particularly interesting Self Recording Barograph indicates that there were 19 well marked risings of the Barometer and 14 fallings of over half-an-inch, within 24 hours; of these, 3 of the falls and 1 rising were as much as three-quarters of an inch. On the other hand there were 6 weeks when the instrument did not show as much as a quarter-of-an-inch in variation. The lowest point in the memorable gale was 29.000 inches at about 6 a.m. on November, 29th.

TEMPERATURE.

The Stevenson's Screen, as has been pointed out, contains the most important instruments in connection with our work; the Dry and Wet Bulb; and the Maximum and Minimum Thermometers. The former of the first pair tells us the Daily Temperature each morning at that universally acknowledged hour of 9 a.m., and the latter the result for a bulb kept constantly damp, and which thus shows the amount of moisture in the air. The Dry Bulb for this year gave as the average $50^{\circ}9$ and the Wet Bulb $47^{\circ}9$; simple subtraction gives the depression of the latter as 3° , and by the use of tables we get the Dew point $44^{\circ}7$; the Mean Elastic force of Vapour .296 inches, and the Relative Humidity 79 per cent. The latter pair are read and re-set each morning, the reading of the first being entered to the previous day and of the other to the morning in question. From these the average Daily Temperature is struck. For 1897 it came out at $50^{\circ}4$, slightly higher than in 1896. The monthly results are given in the attached tables. The warmest day of the year was August 5th and the coldest, January 23rd. The Maximum readings were:—

Between 30° and 40°	...	22 times.
„ 40° „ 50°	...	89 „
„ 50° „ 60°	...	120 „
„ 60° „ 70°	...	88 „
„ 70° „ 80°	...	43 „
Over 80°	...	3 „

the last one each in June, July and August.

The Minimum Thermometer stood at 32° (freezing point) or less during 40 nights, one half of which were in January ; and an Instrument on the grass did so 34 times more, reaching its lowest degree (19°) on Christmas night. The range between the Maximum and Minimum was 14° for July and 8° for January. This is especially looked at by the Medical Faculty, and $11^{\circ}6$ for the year is by no means an excessive amount. Taking the daily averages for the months, we find that January, May and September were below the average, the greatest deficiency being in the first month. April and December were just right, and the other months above. In other words the first two quarters of the year were just about the usual temperature, and the last two a little above. No ground frosts occurred from May 14th to October 8th ; six of the months being practically without frosts.

Two Thermometers are exposed to the Sun's full rays, the Black and Bright Bulbs, the former giving the highest readings possible. On some exceedingly dull days these two were almost the same ; while on very bright warm sunshiny days they were between 20° and 30° apart. The Blackened Bulb read 100° or over on 193 days, the first on February 26th, the last October 29th, *i.e.*—in 9 out of the 12 months.

Of the Earth Thermometers there are 4, going into the ground respectively 6, 12, 24 and 48 inches ; and showing average results of $50^{\circ}8$, $51^{\circ}2$, $51^{\circ}2$ and $51^{\circ}5$ when read at 9 a.m ; the Instrument in the screen above showing, as stated before, at the same time $50^{\circ}9$. The highest readings from these Earth Thermometers were in July and August when on 3 occasions the two nearest the surface read over 70° , but in January the half-foot reached 34° but never fell to freezing point.

WIND.

The 365 observations of the Wind given to the 8 points were,

	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm
Times	31	31	42	30	42	76	61	30	22
Temperature	$49^{\circ}1$	$49^{\circ}5$	$48^{\circ}5$	$53^{\circ}7$	$50^{\circ}9$	$52^{\circ}3$	$52^{\circ}7$	$50^{\circ}1$	$48^{\circ}6$

I have worked out and given the temperature of the air at the times of observations ; very interesting results which I have not before cast. The wind reached the force of a Gale on 10 days.

RAINFALL.

Generally speaking 1897 was a dry year, 5 of the months had less than their usual amount and 6 more. The other just the same. The early part of the year was in excess ; the latter part (except December) was deficient, July and October were very dry ; March was by far the wettest. There were not any days on which more than an inch was measured. The total fall $21\frac{1}{2}$ inches was $2\frac{1}{3}$ below the average for the years I have on my register. The effects of this lessened amount were less noticed, as in the previous year there had been the heavy total of 29in. There were no lengthened droughts, but from the 7th of July to August 4th (29 days) rain only fell on one day, July 19th. The number of rainy days was 151 or 14 below the average. This means there were as many as 214 rainless days. Practically there were 4 dry days in each week on the average a percentage exceeded scarcely anywhere. In 4 separate months there were more than double the number of days without to those with rain. There was scarcely any snow. There were several heavy dews ; on 12 mornings sufficient to equal the one hundredth part of an inch of rain.

(N.B.—This small amount means a ton of water on every acre of land as far as it was deposited).

SUNSHINE.

One of the most interesting entries is that of the Sunshine Recorder. It remains fixed on the roof of the house ; has a good exposure ; and the burn leaves a well marked and straight line. The record is that of Bright Sunshine and not of simply Sunlight. The total number of hours was 1669, the average so far for 6 years being 1574. The sun trace was left on 302 days, of which 33 had less than an hour, while 45 had more than 10 hours. There were therefore 63 sunless days, which is just about the average number. The total compares very favourably with other seaside resorts ; and is a good deal more than London. The amount of Cloud 7·2 calculated by entering a cloudless sky as 0, one completely covered as 10, and estimating between ; was rather more than usual. February was the most cloudy ; July the least so.

The station was inspected and tested by Mr. W. MARRIOTT, Secretary of the Royal Meteorological Society on the 13th of July.

LITERATURE.

Many enquiries have been received respecting the figures ; and as before they have been freely circulated. The local papers include them weekly ; they are printed in the Meteorological Society's records ; and the Sunshine amount is given each Friday in the Government Weather Report. Two telegrams go to London each morning ; and when the Jetty is re-opened to the public, the Notice Board (with the principal weather results to date) re-painted and cleaned ; and with new figures, will be again an object of interest to many. In the Government Blue Books issued during the year with the fullest Meteorological tables for the years 1892-3, the Margate figures are once more given in extenso, there being only 5 other English stations thus treated, and a total of 21 in all for the British Isles ; though the totals for the year are given for about 100.

In conclusion, allow me to express the hope that the publication and otherwise of these important features of our famous health resort are proving of not a little service to our town.

I have the honor to be, gentlemen,

Your obedient servant,

JOHN STOKES, F.R. Met. Soc.

Hon. Meteorologist to the Borough of Margate.

Meteorological Observations—Margate, 1892.

AVERAGES.

BARO.	THERMOMETER.												RAINFALL						SUNSHINE						
	Bulbs.			Max.			Min.			Range			Aver.	Blk.	Brt.	Grass	Fall	Days with-out.	Hgst.	Hrs.	Days with-out.	Days with-out.			
	Dry	Wet															Inch.								
1897.																									
JANUARY ...	29.870	36.1	35.3	°	39.4	31.7	°	7.7	35.5	°	59	44	30°.5	8.0	2.50	19	12	.48	45	14	17	21			
FEBRUARY ...	30.124	41.7	40.7	47.1	36.8	10.3	41.9	74	54	35.7	9.0	1.96	13	15	.55	64	18	10	8						
MARCH ...	29.718	45.7	43.0	51.1	39.2	11.9	45.1	94	63	35.8	6.8	3.55	18	13	.65	127	28	3	11						
APRIL ...	29.840	47.2	43.9	52.2	40.5	11.7	46.3	101	66	37.9	7.6	1.88	15	15	.41	169	27	3	4						
MAY ...	29.987	51.8	47.4	57.3	43.7	13.6	50.5	109	75	41.9	6.1	0.52	10	21	.16	230	31	—	2						
JUNE ...	30.045	61.3	57.6	68.0	53.1	14.9	60.5	115	81	50.5	6.7	1.57	9	21	.90	195	28	2	—						
JULY ...	30.035	63.6	58.4	70.0	55.6	14.4	62.8	120	84	51.9	6.0	0.31	3	28	.22	239	30	1	—						
AUGUST ...	29.898	64.3	59.3	70.3	56.3	14.0	63.3	121	85	52.6	6.3	2.56	15	16	.42	217	31	—	—						
SEPTEMBER	30.026	57.1	54.7	62.2	51.9	10.3	57.0	107	75	47.9	7.3	2.03	13	17	.43	131	28	2	—						
OCTOBER ...	30.205	52.9	50.0	58.3	47.9	10.4	53.1	96	75	42.4	6.8	0.31	5	26	.12	158	29	2	2						
NOVEMBER	30.230	46.9	45.3	51.5	42.1	9.4	46.8	71	56	38.2	8.0	1.52	13	17	.26	41	17	13	4						
DECEMBER	29.993	41.6	40.1	46.7	36.9	9.8	42.0	70	49	32.8	8.0	2.77	18	13	.66	53	21	10	15						
1897 ...	29.997	50.9	47.9	56.2	44.6	11.6	50.4	95	67	41.5	7.2	21.48	151	214	.90	1669	302	63	67						
1896 ...	30.020	50.7	55.9	44.3	11.6	50.1										1491	291	75	74						

EX VERBENAE S.

SCREEN THERMOMETER

BAROMETER.

1897.

	Highest	Lowest	Maximum	Minimum	On Grass	Black Bulb in Sun.
JANUARY	30.551	29.240	47.6°	25.4°	21.9°	86°
FEBRUARY	30.612	29.138	56.8	30.2	26.7	100
MARCH	30.100	28.770	61.0	30.6	23.0	106
APRIL	30.170	28.890	66.8	33.5	28.5	113
MAY	30.100	29.580	73.0	35.4	28.9	120
JUNE	30.378	29.577	86.0	43.0	41.0	132
JULY	30.400	29.650	81.3	48.4	41.6	133
AUGUST	30.250	29.562	83.1	51.1	43.0	130
SEPTEMBER	30.520	29.500	70.2	42.1	38.0	117
OCTOBER	30.584	29.600	67.8	35.2	28.0	107
NOVEMBER	30.732	29.200	59.3	27.8	20.0	92
DECEMBER	30.650	29.299	53.6	27.6	19.0	86
1897	...	...	86.0	25.4	19.0	133
1896	...	...	86.2	24.9	20.0	—

